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ABSTRACT

The effects of the aural-impress and the creative-literary methodologies in teaching reading to 104 educationally retarded and disadvantaged third graders were investigated. The 52 experimental-group pupils received instruction for three 40-minute periods weekly for 16 weeks. Aural-impress procedures were used for 15 minutes each period, followed by 25 minutes devoted to highly structured creative-literary procedures. Each experimental-group pupil was matched with a control pupil on IQ, socioeconomic status, and chronological age. Control groups received instruction through traditional methods for the same time period. Following 16 weeks of instruction, the Gates-MacGinitie Reading Tests--Form 2 were administered. It was found that (1) the gain from pretest to post-test was greater for the experimental group on each aspect of reading measured, (2) experimental-group gain was higher for vocabulary growth than for comprehension growth, (3) group mean grade equivalent gain was higher for the experimental group, (4) reading vocabulary was significantly affected by the variables of IQ, age, age and IQ in combination, and parent occupation, and (5) reading comprehension was significantly affected by parent occupation and IQ. (Author/CM)

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An Investigation of the Effects of Two Divergent Approaches to Teaching Severely Handicapped Readers at the Upper Primary Level

Concern about the teaching of reading is not new to the American scene. However, problems created by technology and automation engendered unprecedented concern during the 1960's. This concern is evidenced by unparalleled criticism of the school's failure to teach reading efficiently to a large segment of the school's population described in the literature as the educationally retarded and disadvantaged... a group severely handicapped in reading ability.

The federal government through the historic Education Acts of 1965, made available huge sums of federal funds for ESEA Title I, and hundreds of school systems instituted special reading programs for the disadvantaged. The literature is replete with reports of innovative programs. Programs using varied methodologies have been put into operation; prolific amounts of new materials have been developed; new organizations for reading instruction have been designed; and reading personnel have been increased considerably. Despite such valiant efforts there is still scant evidence that the problem is being solved.

Reports from committees of learned societies, from reading associations, and from articles appearing in periodicals point out that careful examination of the federally supported programs for the disadvantaged reveal an appalling lack of success.

787

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America cannot afford this lack of success in an area upon which literacy is basically dependent. The task of the school has been defined as that of preparing youth for effective functioning in the society in which they live. In this respect, the schools are carrying the chief burden of change. Present-day society requires a high level of literacy in the broadest sense of the word. Literacy in a democracy depends upon the ability of its citizenry to read well enough to become self-directing and economically efficient.

Reading retardation constitutes the greatest barrier to the effective education of disadvantaged learners. In view of the lack of success in the teaching of reading to the disadvantaged, the question arises: "Is there something inherently lacking in the disadvantaged that makes them immune to instruction? The literature reveals that most authorities answer "NO" to this question. They acknowledge that these disadvantaged children come from homes so impoverished that their physical growth has been stunted; that they are deprived of sensory and intellectual stimulation which provide the prerequisites for successful school achievement; that their movements are so restricted that they are robbed of vital firsthand experiences necessary to expand their fund of concepts and general information; and that they generally have no one at hand to provide the mediation essential to help them carve meaningful concepts from those experiences which they have had. Moreover, the school environment places additional

restrictions on the disadvantaged. Much of the curricular content to which they are exposed is based on the assumption that most of them have seen and understood certain objects and processes prior to their entry into first grade. The disadvantaged child will not have the conceptual foundation upon which to build this superstructure of new concepts which are imposed on him in school. He therefore, experiences confusion and fails to learn.

The conditions which deny the disadvantaged learner the prerequisites for school success, tend also to present other problems involving their general psychological and social adjustment that compound their inability to achieve in an academic setting. Expectation of achievement in an academic setting is based on the assumption that certain conditions are operating within the child. The average child, for example, comes to school expecting to achieve; possessing a natural inquisitiveness; having a sense of personal worth; having achieved some level of aspiration, and a degree of socialization; and possessing certain values held by the general society. These conditions are seldom operating within the educationally retarded and disadvantaged child.

In consideration of these basic learning deficiencies and psycho-social adjustment needs of disadvantaged youngsters, Edwards says:

It is therefore, absolutely imperative that anyone responsible for a good educational program for the culturally disadvantaged learners, first understand that these learners have severely debilitating

experiential-conceptual-information deficits, that they know that these deficits are not a reflection of an innate mental deficiency.¹

In fact it is pointed out that innate intelligence is distributed within the culturally disadvantaged group in the same way it is distributed within the general American population.

If there is nothing inherently lacking in the disadvantaged that makes them immune to instruction, then we must concede that the problem is to a large extent, due to classroom procedures. An examination of current projects reveals that the majority have been designed to compensate for deficiencies without utilizing the positive aspects of the characteristics of the disadvantaged that have been pointed out by psychologists and sociologists. It is imperative that reading programs be designed which capitalize on those characteristics of the disadvantaged that contribute to reading efficiency.

The Need for the Study

There is a need to depart from customary procedures which may be adequate for some children, but doom other children to failure. Inadequate attention has been given to alternative strategies for teaching what is to be taught, and to unexplored approaches to promoting desirable development quite different from the ones customarily employed. New research

¹Thomas J. Edwards, "Learning Problems in Cultural Deprivation," Reading and Inquiry, J. Allen Figurel, ed., International Reading Conference Proceedings, Vol. 10, 1965, 265-271.

designed to explore a variety of methods and combinations of approaches is needed to provide alternatives.

Descriptions of the educationally retarded and disadvantaged children point out certain characteristics that differentiate them from their more advantaged peers. There is a need for programs structured to capitalize on certain characteristics that the disadvantaged possess--characteristics that enhance learning, and that will simultaneously provide for the development of those characteristics that the youngsters do not have that are prerequisites for learning to read. Their weaknesses and strengths have been amply described in the literature. Riessman, however, speaks of a more significant characteristic. One referred to as a "one-track creativity,"-- a kind of creativity less apt to be sanctioned in the grade-dominated school and more likely to be encountered in the slow gifted child. Such a person may relentlessly pursue one line of thought, one problem, one search, one thread, sometimes for years. There is a substantial need for this kind of creativity in our culture. And it is Riessman's belief that this kind of Creativity--a "divergent" type-- will be found among deprived individuals.¹

A knowledge of both positive and negative classification of characteristics is essential in planning programs for the disadvantaged. With this type of knowledge, a comprehensive framework for research can be developed which

¹Frank Riessman, "The Culturally Deprived Child: A New View," Programs for the Educationally Disadvantaged. (Washington, D. C.: United States Government Printing Office, 1963), p. 9.

stresses learner success rather than failure, and strengths rather than disabilities. Within such a framework the various dimensions of growth and development can be identified and the types of instruction appropriate to each dimension can be designed.

The Problem

An essential factor in learning to read involves the process of transfer from the auditory to the visual symbols--a transfer that necessitates making correct recognition responses to specific sets of patterns in graphic form. Auditory aspects of the reading process have been frequently neglected, and efforts to help children make the essential transition have been limited. The extent to which the transition is made is crucial to the development of efficiency in reading. Consequently, any methodology in reading for the educationally retarded and disadvantaged must give priority to these aspects.

Several studies have been focused on the simultaneous stimulation of certain sensory modes, and others have sought to enhance reading ability through creative and literary approaches. The results reported suggest that the aural-impress and the creative-literary methodologies may be more adequate for dealing with the disadvantaged.

Aural-impress procedures are structured to develop perception and imagery by making impression upon the senses through perceptual activities and associated processes. The creative-literary approach is highly conducive to the development

of verbal facility and divergent thinking processes. In both methodologies, there is no pressure to perform in relation to peers, thereby eliminating the threat of failure. Studies related to these methodologies have been conducted but no reports were found that sought to improve reading through the simultaneous use of the aural and visual sensory modalities concurrently with a creative-literary approach.

Therefore, the purpose of this study was to investigate the effects of the aural-impress and the creative-literary methodologies in teaching reading to educationally retarded and disadvantaged pupils at the third grade level.

Hypotheses Tested

The following null hypotheses were tested:

1. There is no significant difference in growth in vocabulary development and reading comprehension as measured by the Gates-MacGinitie Reading Tests for educationally retarded and disadvantaged pupils taught by the aural-impress and the creative-literary methodologies and those pupils taught by traditional methodologies.

2. A subordinate hypothesis tested was that any relationship between growth occurring in reading vocabulary and reading comprehension is not dependent on any of the following variables; chronological age, intelligence, sex, race, or parental occupation.

Research Design

Pupil selection. The sample for this study was comprised of 104 third grade pupils assigned to special

remedial reading classes in eight Durham, North Carolina city schools. The experimental group was composed of fifty-two of the 104 pupils, selected on the basis of performance on the Gates-MacGinitie Reading Tests. The fifty-two pupils comprising the control group, were paired with the experimental sample on the basis of intelligence test scores, socio-economic status, and chronological age. The grade placement scores of the pupils in the experimental group ranged from 1.4 to 2.2. The scores of the matched controls ranged from 1.5 to 3.3 at the initial testing. The average class size for both the control and experimental groups was 5.5 in number.

Instruction was given for three forty minute periods weekly for sixteen weeks to both groups. Aural-impress and the creative-literary methodologies were used with the experimental groups while the pupils used as controls were taught through traditional methodologies. Aural-impress procedures were used for fifteen minutes each period, followed by twenty-five minutes devoted to highly structured creative-literary procedures. Special materials were used with the experimental groups. Materials of high interest and of low-level difficulty designed to improve verbal ability, and materials designed to develop social concepts were used predominately.

Data on each pupil's reading and socio-economic status, age, sex, and intelligence quotient were taken from the cumulative school record. The pre-test, post comparison of scores on the reading test provided a system for determining growth following the use of the methodologies.

Inasmuch as the number of related variables and the complexity of interrelationships made their control difficult,

meaningful conclusions could not be drawn unless the effects of these extraneous variables were analyzed. For this reason the multiple linear regression procedure was used. This procedure permits an analysis of relationships between various combinations of independent or predictor variables and the criterion variable by removing the effects of any desired variable from the relationship. Two types of variables were considered in the general regression analysis. The criterion and the predictor variables.

The criterion variables utilized ~~was~~^{were} vocabulary and comprehension. The predictor variables categorically identified children as educationally retarded and disadvantaged on the basis of age, grade, sex, race, and parent occupation.

Full and restricted mathematical regression models were defined and compared for each null hypothesis under consideration. The restricted models reflected the effects on the predictive information of factors considered in various forms or categories. The full models generated the error terms appropriate for the analysis of variance and covariance when appropriate.

Procedure

Inability to make auditory discrimination, faulty aural perception of word sounds, and short aural memory span contribute to the inability to read efficiently. Consequently the aural-impress methodology is structured to eliminate faulty aural perception and to increase the aural memory span. This is accomplished through the impress o sound to the aural sensory receptors, simultaneously with the presentation of visual stimuli.

Through this procedure, the child hears the correct pronunciation of the words as the teacher reads, sees the words that are spoken, and gets understanding from the context of the material and from the teacher's intonation. In this manner the child is freed from the slow, plodding, meaningless reading that is characteristic of the retarded.

Best results are obtained when the teacher stands or sits behind the pupils. Following adequate motivation, and the establishment of a purpose, the teacher reads aloud as the children follow visually the material being read. The words are heard and ^{seen}/simultaneously. Immediately following the oral presentation, the teacher seeks to involve the children in a discussion of the material that was read. The discussion can be in a variety of forms. It may involve reacting to situational episodes in the story, deciding what they would have done in similar situations, giving factual information, making inferences, and extending the stories.

The creative-literary methodology lends itself well to divergent thinking processes that aid in the development of imaginative, original, and flexible approaches to reading. In this procedure, stories, poems, and various types of material were read to the children. A considerable amount of materials from the Peabody Language Development Kit and from Our Working World were used in the creative-literary approach. Much of this type of reading material is uniquely adaptable to dramatization--an important aspect of the procedures.

Opportunities were provided for the children to develop

new and unique ideas, also to use the writer's ideas in addition to their own, and for practice in finding solutions to problems. This was done through the application of such techniques as extending the author's ideas for ~~the new application of such techniques as extending the author's ideas for~~ new applications; adding to what was found in the printed material; completing unfinished stories; substituting characterization; suggesting new solutions; and examining the consequences that arise other than those stated in the selections.

Oral language facility is one of the most important factors in the development of reading. The creative-literary approach places special emphasis on oral expression as a medium of developing vocabulary of high transfer potential for the association of sounds with the visual symbols. Pictures and objects are especially adaptable for developing these abilities.

Following sixteen weeks of instruction, the Gates-MacGinitie Reading Tests-Form 2 was administered to all pupils in both the experimental and the control groups. The data were collected and ~~analyzed~~ ^{the analysis made} by an electronic computer, thus providing a system for determining growth resulting from the methodologies used.

Limitations

This study has certain limitations which should be kept in mind in evaluating and interpreting the results: (1) the sample with which this study was conducted was representative of a limited number of a population categorized as educationally retarded and disadvantaged, and severely handicapped

can be considered with certainty to be representative only of the third grade remedial classes in the schools that participated in the study; (2) the use of the aural-impress and the creative-literary methodologies are limited to the teachers' interpretation of the process and procedures and their ability to make proper application of the techniques involved; and (3) the measurements obtained were limited by the reliability and validity of the instruments used.

Data Analysis

The following data were obtained from the study:

1. The means and standard deviations of all variables for the experimental and control samples combined and singly.
2. The effects of predictor variables singly and in combination on the criterion variables of reading vocabulary and reading comprehension for the experimental and control groups.
3. The correlation coefficients of each variable for the experimental and control groups singly and in combination.

This information permitted a comparison of the experimental groups taught by the aural-impress and the creative-literary methodologies with the control groups taught by the traditional methodologies.

The following results were obtained from the data:

1. The experimental group had lower mean scores on the initial test of those aspects measured--reading vocabulary and reading comprehension.
2. The gain from pre to post-test was greater for

the experimental group on each aspect of reading measured.

3. The gain made by the experimental group was higher for vocabulary growth than for growth in comprehension.

4. The mean grade equivalent gain by the experimental group was higher than the mean grade equivalent gain for the control group.

5. Reading vocabulary was significantly affected by the variables of IQ, age, age and IQ in combination, and parent occupation.

6. Reading comprehension was significantly affected by parent occupation and IQ.

Conclusions and Implications

The hypotheses stated in null form were rejected, leading to the following conclusions for the population studied:

1. There is a significant difference in vocabulary development and reading comprehension as measured by the Gates-MacGinitie Reading Tests for educationally retarded and disadvantaged pupils taught by the aural-impress and the creative-literary methodologies and those pupils taught by traditional methodologies.

2. When the control and experimental groups are combined, growth occurring in vocabulary development is dependent on the variable age, and the combined variables of age and IQ. Growth occurring in reading comprehension for the two groups is significantly affected by the variable-parent occupation.

3. For the control group, growth occurring in reading vocabulary and reading comprehension is dependent on IQ.

4. Growth in reading vocabulary for the experimental group appeared to be dependent on the variables of age, age and IQ in combination, and parent occupation. Growth in comprehension was significantly affected by parent occupation.

The findings from this study are applicable only to the third grade pupils in the eight schools participating in the study. However, the writer believes that if this study could be replicated using a larger sample of disadvantaged pupils representative of a cross-section of the country, and the findings were similar to those obtained from this study, the following generalizations could be made:

1. Educationally retarded and disadvantaged pupils appear to profit significantly from the simultaneous stimulation of the aural and visual sensory receptors.

2. When materials and techniques are used that capitalize on the strengths of the disadvantaged pupils, the ability to read is enhanced.

3. Procedures that make use of the kind of creativity possessed by the educationally retarded and disadvantaged pupils will have significant effect upon reading growth.